

WHEN WESTERN AMERICA SPITS FIRE

Cones of Great Peaks Covering a Territory 4,000 Miles Long and 500 Wide, Were Created by Former Remarkable Volcanic Activity, Which Once Filled Western North America With Large Smoky Region

BY HARRY L. WELLS.

A volcano in the United States! Lassen Peak in eruption!

How it conjures up visions of fire and smoke a mile high, with great streams of lava overflowing the crater and laying waste the fair State of California. Stromboli, Vesuvius, Aetna, Erebus, Mauna Loa, Pelee, all rush into our minds, and we see the people of the Golden State fleeing for their lives and their orchards and vineyards, their orange groves and prune trees, consumed by the fervent heat.

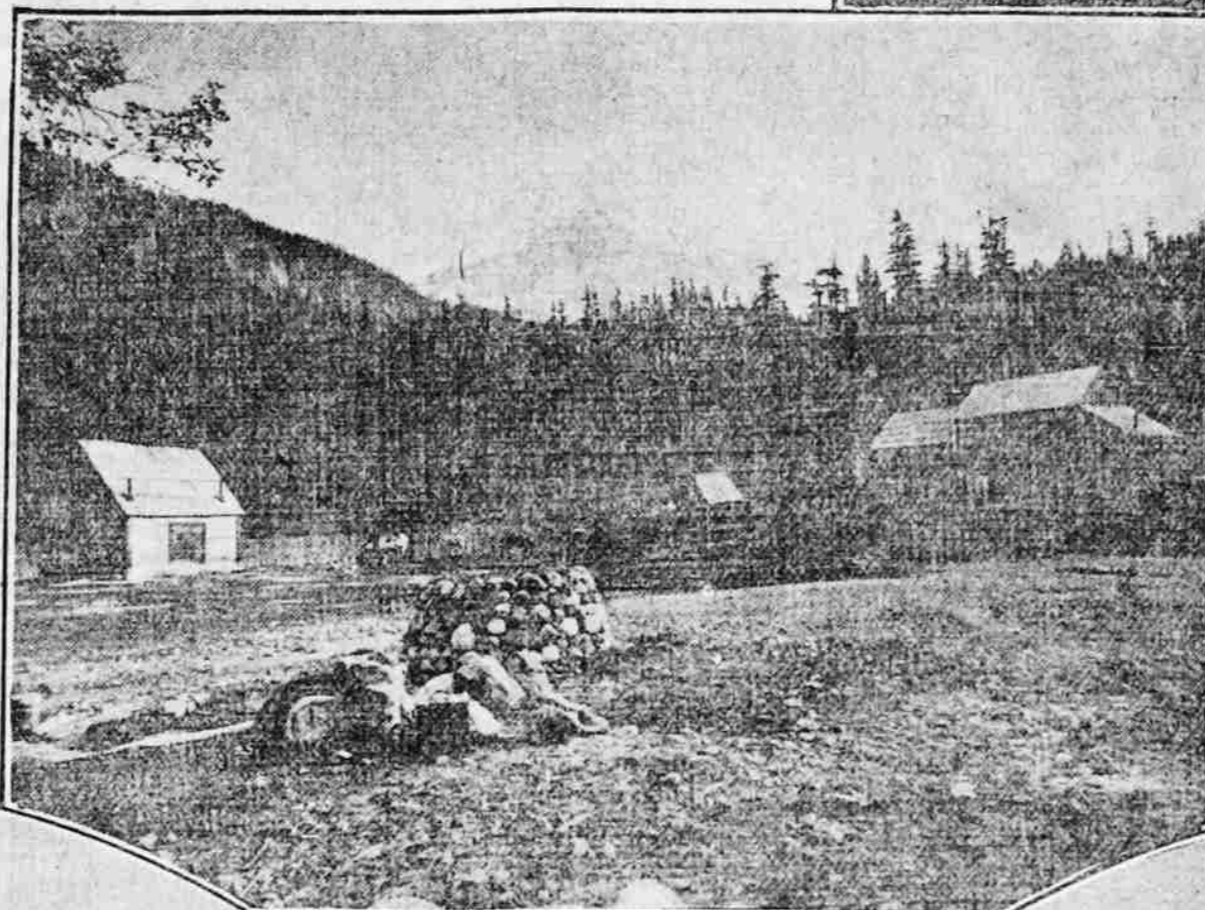
All this might have happened years ago, many, many years ago, for there is a large blanket of lava rock over a large part of California, Oregon, Washington, Idaho and Nevada, showing volcanic activity on a scale more gigantic than is indi-

the original height of this monster volcano from the circumference of this crater, it is declared by scientists to have been approximately 20,000 feet high.

Crater Lake is truly a marvelous body of water. It is so deep down into the bowels of the earth that a sounding line 2,000 feet long gives no indication of bottom. And the color of the water is so intensely blue that no artist dares to paint it as it is and endure the jeers of critics.

VOLCANOES COVER VAST TERRITORY.

But what a scene of terrific grandeur it must have been, when all these huge volcanoes were in action together, in conjunction with a multitude of smaller ones, filling the sky with fire and smoke over a region 4,000 miles long and 500 wide. The human mind can scarcely grasp it. And at that time much of the land now covered with for-



UPPER right, summit of Mt. Hood. Upper center, one view of Mt. Rainier. Center left, Mt. Adams from Trout Lake. Center right, Mt. Hood from Portland. Lower left, Cowlitz Glacier from Mt. Rainier. Lower right, Camp Mazama in Paradise Park near Rainier's snow line.



traveling public are also among the easiest to climb. These are Shasta and Hood. Shasta lies in Northern California, the road skirting its base. In the summer time one can ride a horse through the forest to the edge of the timber, and from there it is not very difficult to go to the summit. Many parties go up every year.

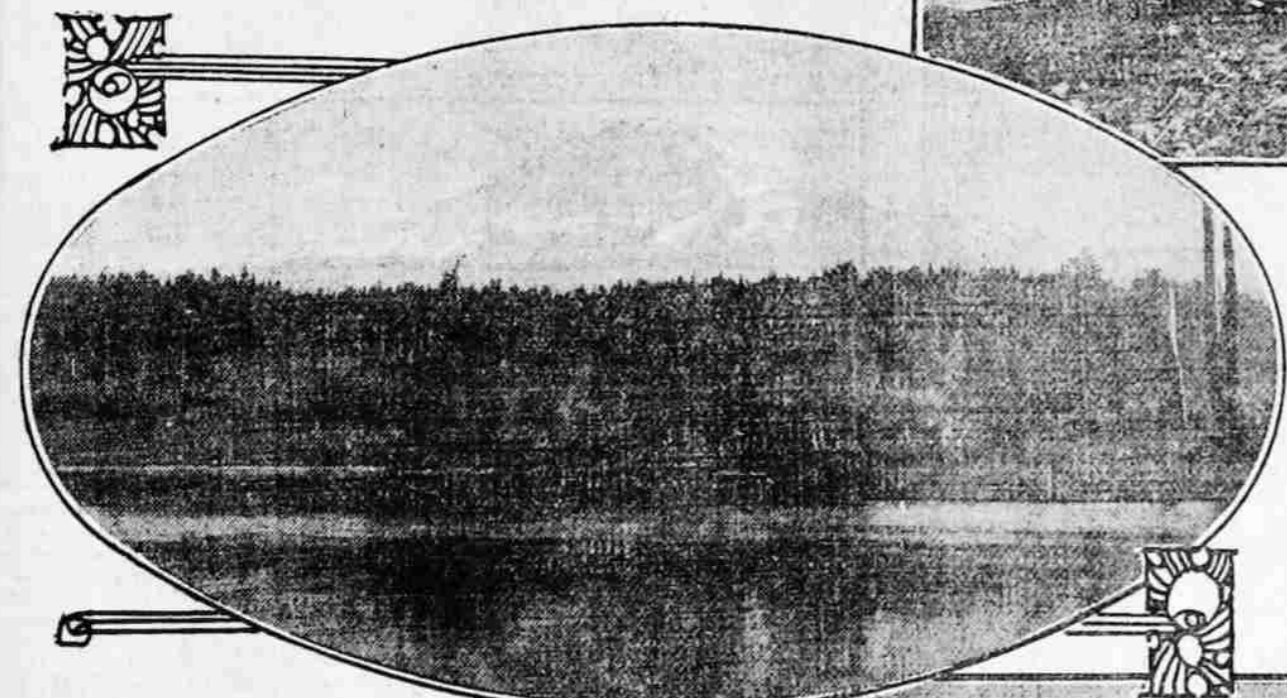
Climbing Hood is more difficult. It is sixty miles from Portland, but an electric line is being constructed which will make it a regular part of tourist travel. A road across the Cascade Mountains climbs as high as 8,500 feet, but from there on it is a foot job to the timber line, 2,000 feet higher. Only good climbers can reach the summit from the timber line on the south side. There

ful he merely stands in the snow with his knees bent, like a man standing in a moving wagon, and steadies and guides himself with his alpenstock under his arm extending into the snow behind him like a rudder. But if he is a beginner he simply sits down in the snow and scoots, trusting to the quality of the cloth in his trousers for a satisfactory journey.

Baroness Introduces Toe Rings.

"Rings on her fingers and bells on her toes!"

"Well, once perhaps—but not any more. That is, the bells are passé; finger rings, of course, still persist. The trouble with the bells seems



cated in like limits anywhere else in the world. But spread over that lava blanket is a deep stratum of earth, in which are growing trees, vast forests, centuries old, and other trees also centuries old may have grown there and decayed.

As time goes, the mountains of the Pacific Coast are the youngest in America. The real infant is the Coast Range, rising to a height of 2,000 to 4,000 feet, with very few prominent peaks. The next is the great Cascade Range, extending from Alaska down through British Columbia, Washington, Oregon and California, where its name is changed to Sierra Nevada, to the Gulf of Lower California.

This range is of purely volcanic origin. All along it, like a line of sentinels, stand peaks that have contributed to the great lava blanket which covers so much of the country. Beginning at the north, the best known of them are McKinley and St. Elias in Alaska, Fairweather and Edgecomb in British Columbia, Baker, Rainier, Adams and St. Helens in Washington, Hood, Three Sisters, Jefferson, Pitt and Crater Mountain in Oregon, Shasta, Lassen and Whitney in California.

As these mountains now stand in their robes of perpetual snow, a beautiful, grand and imposing sight as they raise their white masses above the green forests, it is difficult to conceive them as centers of intense heat and sources of vast streams of lava, such as the surrounding country for many miles in all directions proves them to have been. Apparently the greatest of these volcanoes, and perhaps the largest the world ever had—saw would scarcely be the proper word to use, as probably not a human eye witnessed the magnitude and terror of the eruption—was the one now contained in Crater Lake Park, in Southern Oregon. The whole upper half or more of this mountain has disappeared, yet it reaches a height of more than 10,000 feet, and in the crater is a marvelous lake exceeding ten miles in circumference.

Presumably at some far distant period the entire upper part of this volcano fell inward to unknown depths, to take the place of the immense quantities of material it had for many centuries heaped forth. This left a great hollow ten miles in circumference, which, in the course of time, filled with water and gave us what we call Crater Lake. Thrust up from this interior lake is the cone of a second volcano, also dead, mute testimony to the long lapse of time since the huge mountain collapsed. Estimating



ests and with fertile farms was a part of the ocean or of vast inland seas.

But the question, has Lassen Peak been in eruption, is not answered by this description of what happened ages ago. It is possible there has been some emission of smoke. None of these huge ancient volcanoes is entirely extinct, unless it be Crater Mountain. Heat is found on most of them near their summits. Lassen is one of these. Shasta, which is about forty miles from Lassen, and is 14,412 high, has perpetual hot springs on the highest of its two peaks. Boiling mud is found there at all seasons of the year. A number of years ago Prof. John Muir ascended Shasta with a companion in April, a season entirely too early for safety, and was caught in a storm. Only by lying all night in the hot mud were they able to save their lives.

On Mount Hood a huge mass of rock framing in the lower, or southern, edge of the crater—which is half a mile in diameter and filled with snow—is so heated that snow never covers it. Those who climb the mountain always make Crater Rock a resting place, some 500 feet below the summit, and heat their coffee by lowering it into the crevices in the rock, or melt snow for drinking in the same way. And a little further along, under the overhang of the lower rim of the crater,

sulphur fumes are quite pronounced.

Across the Columbia to the north, and distant about forty miles, is Mount Adams. This mountain also has heat at its summit. Just north of the highest point, and at the base of a huge rocky wall, which was once a part of the crater wall, sulphur fumes escape, so dense that those who get them in their full strength by a shift in the wind are almost suffocated. It is believed that Hood and Adams are the most recently active volcanoes in the entire range. There are traditions of the activity of Hood, Adams and St. Helens, three mountains forming a triangle in the Columbia River region. Early settlers—back in the 'forties—assert having seen smoke from all of them, but there is no real evidence. Cloud effects, optical illusion and the blowing of snow about the summit have all been advanced to account for these apparent eruptions.

But that there was violent eruption at some time since the Indians occupied the country is shown by their traditions. One of these says that formerly Adams and Hood stood close to the river bank and were great friends. A bridge of rock spanned the river between them, called the "Bridge of the Gods." But once upon a time—or whatever the Indian words are for that idea—these old friends had a

falling out, and began spitting fire at each other. This so displeased the Great Spirit that he moved them farther apart and destroyed the bridge, and the huge masses of rock in the river at that place are pointed to as proof of the story. This choking of the channel at what is known as the Cascades, about forty miles above Portland, interrupts navigation, and the government has built locks there at a cost

of about \$4,000,000—all because two old friends had a falling out and spit fire.

MOUNTAIN PEAKS COVERED WITH SNOW.

All these mountains are covered with snow. The timber line ceases at an elevation of about 10,500 feet, and above that the peaks are bare of vegetation and covered with perpetual snow for a distance of from 2,000 to 4,000 feet. Some of them are fairly easy to climb and others very difficult. The trouble climbers have had in trying to get to the top of Mount McKinley is an illustration of the difficulty. In some

is another route to the top on the north side which is still more difficult. Probably more people have climbed Hood than any other of the snow mountains of the West, and the electric line will largely increase this number.

Adams and St. Helens are seldom climbed and are somewhat more difficult. Rainier, higher than any of these, is far more difficult of ascent, two days usually being taken to go from the base to the top.

Several climbers have lost their lives on these mountains, and others have had very narrow escapes. There are huge glaciers and deep

to have been that some difficulty rose in our Northern clime when attempts were made to put on shoes over the bells—it made the wearers' feet too large.

But now, owing to the startling innovation of Baroness de Guestré of Paris, the sandal is coming back into use.

Result? Why, toe rings, of course. Toe rings are going to be "all the rage" in Paris this summer, and cable dispatches from the city of mirth and laughter and fashions say the jewelers are laying in stocks of beautiful circlets.

These rings are made in vastly varying sizes, since rings for each toe are in order, and, as everyone knows, the sizes of the toes differ greatly.

Now, if the cry were for bells, all that would be necessary would be bells of the same size, for ribbons cannot be used to fasten them to the toes; but with rings it's different, and rings are the thing.

The originator of the sandal footgear and the toe ring—at least in modern times—is one of the most charming women in Paris.

Baroness de Guestré is a noted beauty and an artist withal, for she designs her own charming gowns and all Paris raves over them. This winter the Baroness went to the Theater des Champs Elysees attired in a loose Greek robe with sandalled feet.

Her appearance in the audience in such a costume attracted a great deal of attention, but so harmonious was the effect of the dress and the sandalled feet in the theater that society took the cue.

And now it will be worth while keeping an eye out on Fifth avenue in New York—because Fifth avenue goes in for the very latest.

Incidentally there is going to be a large number of women whose much abused feet will appreciate their temporary freedom.

Very Badly Biffed!

Courtesy Billions kicked himself as he walked out of the courtroom. Here, on his first appearance as a barrister, he had been beaten by a third-rate lawyer.

"The little 'un was too smart for you, sir," said his humble client in a disappointed tone.

"Trickery—trickery!" he replied. "Ah, that may be; but he could jaw well enough!"

Later in the afternoon Billions encountered the lawyer comfortably sunning himself in the smokeroom of the hotel. Against his will, spite rose within him.

"Sir," he said, "is there any case that is too dirty for you to touch or any criminal so low that you won't defend him?"

"No," came the quiet reply. "Why, what have you been doing now, my boy?"

